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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/980,032	11/27/2001	Thomas Arvidsson	99002 UTAP	8077

7590

11/12/2004

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EXAMINER
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LUGO, CARLOS

ART UNIT	PAPER NUMBER
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3676

DATE MAILED: 11/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/980,032

Applicant(s)

ARVIDSSON, THOMAS

Examiner

Carlos Lugo

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 September 2004.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) 13-17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This Office Action is in response to applicant's amendment filed on September 23, 2004.

#### ***Election/Restrictions***

2. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions, which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

- Group I, claim(s) 1-12 drawn to a tube formed rock bore hole stabilizing bolt.
- Group II, claim(s) 13-17, drawn to a method for stabilizing bore holes drilled in conjunction with rock drilling operations and manufacturing the tube.

The inventions listed as Groups I and II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

- Inventions I and II are related as process of making and process of using the product. The use as claimed cannot be practiced with a materially different product. Since the product is not allowable, restriction is proper between said method of making and method of using. The product claim will be examined along with the elected invention (MPEP § 806.05(i)).

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3. Newly submitted claims 13-17 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons:

Newly submitted claims 13-17 are directed to a method for stabilizing bore holes. The method includes the steps of inserting the bolt into a bore, manufacturing the bolt by means of extrusion, that the manufacturing material is an aluminum based material, etc.

The previously examined claims, claims 1-12, are directed to a tube formed rock bore hole-stabilizing bolt. This bolt does not requires to be manufactured by extrusion and that the material should be aluminum. It is well known in the art that the material to manufacturing the bolt could be steel. Also, it could be obvious to use a different manufacturing process, other than extrusion, in order to manufacture the bolt.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 13-17 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

#### ***Specification***

4. The specification is objected to because of the following informalities:
  - Page 1 Line 1, include a line establishing the proper claim priority to the application.

Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claims 1 and 2 are rejected** under 35 U.S.C. 103(a) as being unpatentable over US Pat No 4,511,289 to Herron (Herron '289) in view of US Pat No 2,573,498 to Scott.

Regarding claim 1, Herron '289 discloses a tube formed rock bolt comprising an elongated tube (11), which in a cross section has a peripheral length, which exceeds the peripheral length of a circle having a diameter being equal to a largest transverse dimension of the tube. The bolt includes two end closures (13 and 14). One of the closures includes a passage (18) for pressurized the interior of the bolt in order to expand it.

However, Herron '289 fails to disclose that the tube has a varying material thickness in a peripheral direction when measure perpendicularly to the outer surface of the tube.

Scott teaches that is known in the art to have an elongated tube (10) having a varying material thickness in a peripheral direction when measure perpendicularly to the outer surface of the tube (Figure 4).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a varying material thickness, as taught by Scott, into a

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device as described by Herron '289, in order to give more strength to the body and to give good contact force against the wall of the hole where the embodiment is placed when is expanded.

As to claim 2, it is the patentability of the product and not recited process steps that are to be determined. How the bolt was formed is of little consequence to the patentability of the bolt itself. Therefore, this limitation has been given little patentable weight.

7. **Claims 1,2,4,5 and 7 are rejected** under 35 U.S.C. 103(a) as being unpatentable over GB Pat No 2,072,784 to Winston in view of US Pat No 2,573,498 to Scott.

Regarding claim 1, Winston discloses a tube formed rock bolt comprising an elongated tube (10), which in a cross section has a peripheral length, which exceeds the peripheral length of a circle having a diameter being equal to a largest transverse dimension of the tube. The bolt includes two end closures (20 and 24). One of the closures includes a passage (38) for pressurized the interior of the bolt in order to expand it.

However, Winston fails to disclose that the tube has a varying material thickness in a peripheral direction when measure perpendicularly to the outer surface of the tube.

Scott teaches that is known in the art to have an elongated tube (10) having a varying material thickness in a peripheral direction when measure perpendicularly to the outer surface of the tube (Figure 4).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a varying material thickness, as taught by Scott, into a device as described by Winston, in order to give more strength to the body and to give good contact force against the wall of the hole where the embodiment is placed when is expanded.

As to claim 2, it is the patentability of the product and not recited process steps that are to be determined. How the bolt was formed is of little consequence to the patentability of the bolt itself. Therefore, this limitation has been given little patentable weight.

As to claims 4 and 7, Winston illustrates that the tube is symmetrical about two longitudinal sections, which are perpendicular relative to each other.

As to claim 5, Winston illustrates that the tube comprises a plurality of substantially triangularly formed stiff parts and intermediate U-shaped deformation parts (12).

8. **Claims 3 and 6 are rejected** under 35 U.S.C. 103(a) as being unpatentable over US Pat No 4,511,289 to Herron (Herron '289) in view of US Pat No 2,573,498 to Scott and further in view of US Pat No 5,183,358 to Foulkes et al (Foulkes).

Herron '289, as modified by Scott, fails to disclose that the bolt is made of an aluminum-based material.

Foulkes teaches that is known in the art to have an expandable member (12) made of aluminum.

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It would have been obvious to one having ordinary skill in the art at the time the invention was made to use aluminum, as taught by Foulkes, into a device as described by Herron '289, as modified by Scott, in order to use the characteristics of the material into the tube formed rock bolt.

9. **Claims 3,6,8 and 10-12 are rejected** under 35 U.S.C. 103(a) as being unpatentable over GB Pat No 2,072,784 to Winston in view of US Pat No 2,573,498 to Scott and further in view of US Pat No US Pat No 5,183,358 to Foulkes et al (Foulkes).

Regarding claims 3 and 6, Winston, as modified by Scott, fails to disclose that the bolt is made of an aluminum-based material.

Foulkes teaches that is known in the art to have an expandable member (12) made of aluminum.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use aluminum, as taught by Foulkes, into a device as described by Winston, as modified by Scott, in order to use the characteristics of the material into the tube formed rock bolt.

As to claims 8 and 9, Winston illustrates that the tube is symmetrical about two longitudinal sections, which are perpendicular relative to each other.

As to claim 10-12, Winston illustrates that the tube comprises a plurality of substantially triangularly formed stiff parts and intermediate U-shaped deformation parts (12).



***Response to Arguments***

10. Applicant's arguments filed September 23, 2004 have been fully considered but they are not persuasive.

Regarding applicant's arguments that Scott fails to disclose a rock bore hole-stabilizing bolt (Page 9 Line 11), Herron and Winston, the two primary references, already disclose this limitation. Scott is used to show that it is well known in the expandable bolt art to have varying material thickness in a peripheral direction when measure perpendicularly to the outer surface of the tube.

As to applicant's arguments that Scott bolt is made of plastic and therefore it would not be obvious to make the combination (Page 10 Line 5), Scott also teaches that the bolt could be made of metal (Col. 3 Lines 10-17).

As to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

***Conclusion***

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carlos Lugo whose telephone number is 703-305-9747. The examiner can normally be reached on 9-6pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on 703-308-2686. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-5771.

C.L.

Carlos Lugo  
AU 3676

November 10, 2004.



DANIEL P. STODOLA  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3600